A MODEL TO ESTIMATE INCREASE IN REVENUE FROM IMPLEMENTING MEDICATION ADHERENCE MANAGEMENT SERVICES IN COMMUNITY PHARMACIES
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OBJECTIVES: Programs to increase medication adherence are receiving increased attention. One incentive for pharmacies to implement such services is the potential increase in revenue. The objective was to estimate changes in revenue a community pharmacy might see after three years after implementing a new medication management service (RxSync ServiceTM). METHODS: A Markov economic model was developed using Excel. Model inputs are average week/day/weekend patient volumes, current average medication possession ratio (MPR) for chronic medication prescriptions, expected MPR for patients enrolled in the service, goals for enrolling existing and new patients into the service, current gross prescription sales, and net profit on prescription sales. A three year time frame was used to estimate yearly increases in net revenue and monthly patient enrollment and increases in prescription volume. Model assumptions are based on data collected from five pharmacies participating in a project with the RxSync Service. RESULTS: A conservative scenario (70% of current target patients in 18 months) resulted in a peak of $244,389 additional prescriptions/month at month 21 and net revenue increases of $8,438, $26,386, $27,806. CONCLUSIONS: The model demonstrates that an effective medication adherence management program could increase net revenue for a community pharmacy. The increases will be relatively small (net revenue increases of $8,438, $26,386, $27,806). COMPLEXITY HOSPITALS FROM COLOMBIA
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OBJECTIVES: Evaluate the usefulness of cost per DDD to identify problematic drugs in medium- and high-level complexity hospitals from Colombia. METHODS: This was a cross-sectional study where drug prescriptions were evaluated in 331 second- and third-level complexity hospitals from 27 Colombian departments during 2006-2007. RESULTS: A total of $87,483 prescriptions for 3663 patients were analysed, 54.7% of them affiliated to contributory health care system and the median age was 58, 39 daily defined doses (DDD)/1000 patients. Filgrastim and Interferon represent almost 48% of DDDs of D90%. The overall cost per DDD was $US8.9, being this cost lower in drugs of D90% than drugs out of this list ($US1.79 vs.$US0.24, p = 0.03). Also the cost per DDD was higher in patients affiliated to contributory health care system than patients affiliated to public health care system (US$ 3.01 vs. US$2.09, p = 0.03). The antineoplastic and immunomodulating agents (Code L, ATC Classification System), and drugs of musculoskeletal system (Code M, ATC Classification System) were the drugs with higher cost per DDD (US$1686 and US$8.9, respectively). CONCLUSIONS: In this population, antineoplastic and immunomodulating agents have cost per DDD that were 100 times higher than other drugs, although the estimation of cost per DDD allows identifying problematic drugs in this population such as Filgrastim and Interferon which prescriptions must be check carefully. Were evident differences of drug’s cost by type of health care system regardless that do not exist differences of drugs coverage in the Colombian health system by affiliation. The cost per DDD and D90% 90% are useful indicators to identify problematic drugs in developing countries.

PHP65
USEFULNESS OF COST PER DEFINED DAILY DOSE (DDD) TO IDENTIFY PROBLEMATIC DRUGS IN MEDIUM- AND HIGH-LEVEL COMPLEXITY HOSPITALS FROM COLOMBIA
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OBJECTIVES: Evaluate the usefulness of cost per DDD to identify problematic drugs in medium- and high-level complexity hospitals from Colombia. METHODS: This was a cross-sectional study where drug prescriptions were evaluated in 331 second- and third-level complexity hospitals from 27 Colombian departments during 2006-2007. RESULTS: A total of $87,483 prescriptions for 3663 patients were analysed, 54.7% of them affiliated to contributory health care system and the median age was 58, 39 daily defined doses (DDD)/1000 patients. Filgrastim and Interferon represent almost 48% of DDDs of D90%. The overall cost per DDD was $US8.9, being this cost lower in drugs of D90% than drugs out of this list ($US1.79 vs.$US0.24, p = 0.03). Also the cost per DDD was higher in patients affiliated to contributory health care system than patients affiliated to public health care system (US$ 3.01 vs. US$2.09, p = 0.03). The antineoplastic and immunomodulating agents (Code L, ATC Classification System), and drugs of musculoskeletal system (Code M, ATC Classification System) were the drugs with higher cost per DDD (US$1686 and US$8.9, respectively). CONCLUSIONS: In this population, antineoplastic and immunomodulating agents have cost per DDD that were 100 times higher than other drugs, although the estimation of cost per DDD allows identifying problematic drugs in this population such as Filgrastim and Interferon which prescriptions must be check carefully. Were evident differences of drug’s cost by type of health care system regardless that do not exist differences of drugs coverage in the Colombian health system by affiliation. The cost per DDD and D90% 90% are useful indicators to identify problematic drugs in developing countries.

EXCESS HOSPITAL COSTS ATTRIBUTABLE TO MEDICATION ERRORS IN HOSPITALIZED PATIENTS
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OBJECTIVES: To calculate the incidence of medication errors (MEs), examine types and causes of MEs, and estimate the excess hospital costs attributable to MEs during hospitalization. METHODS: This was a retrospective cohort study of hospitalizations from 17 hospitals in 10 countries. Medical records of hospitalized patients were collected for 4000 patients admitted to the medical/surgical units of two hospitals (176-bed community and 417-bed academic hospitals) from January 2003-December 2006. ME data was collected from hospital-specific voluntary reports for patients who experienced MEs. Hospital costs data was obtained from hospitals’ accounting department and were estimated from the payers’ point of view. The excess hospital costs if MEs were prevented in patients with MEs were estimated using a recycled prediction method. A generalized linear model with gamma distribution and log link function was used to derive coefficients of the study variables from all patients. Among the patients with ME, the mean cost was predicted using the coefficients derived from all patients, with the assumption that patients without MEs. All costs were converted to 2008 US dollars. RESULTS: A total of 470 MEs out of 57,554 patients were identified. The overall rate for MEs was 0.8 errors per 100 admissions and 1.7 errors per 1000 patient-hospitalized days (harmful MEs = 0.4 and non-harmful MEs = 1.3). MEs occurred most frequently in the stage of administration (35.7%), followed by dispensing (18.5%) and ordering (15.5%). The most common types of MEs were wrong time (19.8%), wrong medication (18.1%), and wrong dose (17.0%). About 45% of MEs involved antibiotics, opiates, insulin, and electrolytes and fluid. If patients who experienced MEs during hospitalization were not to have these MEs, their hospital costs would be reduced by $6,973 (95%CI US$6,138–7,808). CONCLUSIONS: This study demonstrated the importance of reducing medication errors because of its substantial economic burden to our society. Additional studies are needed to assess the cost effectiveness of various strategies in reducing MEs.